

Date.	R. A.	N. P. D.	Date.	R. A.	N. P. D.
1847.	^h ^m ^s	[°] ['] ["]	1847.	^h ^m ^s	[°] ['] ["]
Sept. 3	22 4 2 ⁹ 5	102 30 51 ⁵	Sept. 8	22 3 32 ⁷ 5	102 33 37 ⁴
4	3 56 ⁸ 4	31 25 ¹	9	26 ⁸ 2	34 9 ⁹
5	50 ⁷ 7	31 58 ⁵	10	20 ⁹ 3	34 42 ²
6	44 ⁷ 3	32 31 ⁷	11	15 ⁰ 9	35 14 ¹
7	22 3 38 ⁷ 2	102 33 4 ⁷	12	22 3 9 ² 7	102 35 45 ⁸

Mr. Adams finds the following log distances of the Earth from Neptune.

July 19	1 ⁴ 64782	August 28	1 ⁴ 62553
August 8	1 ⁴ 62822	Sept. 17	1 ⁴ 64028

the horizontal parallax may be taken to be 0^{''}3

On comparing Professor Challis's places with those given by the ephemeris, Mr. Adams finds the following corrections :—

	R. A. Obs ^d .—Calc ^d .	N. P. D. Obs ^d .—Calc ^d .
1847. May 26	+ 0 [·] 18	+ 1 ^{''} 5
June 1	+ 0 [·] 21	+ 1 ^{''} 0
19	+ 0 [·] 02	+ 1 ^{''} 3
July 13	− 0 [·] 23	+ 1 ^{''} 1

HAMBURG.		(M. Rümker.)			
Date.	Hamburg M.T.	R. A.	Dec.	No. of Obs.	
	^h ^m ^s	[°] ['] ["]	[°] ['] ["]		
1847. June 14	13 15 0	332 37 41 ²	− 11 53 27 ⁹	5	
17	13 33 3	36 46 ⁸	54 0	1	
18	13 5 18 ⁵	36 10 ⁸	54 22 ⁵	5	
20	12 51 10 ⁰	35 6 ²	54 52 ⁸	3	
23	57 10 ⁰	33 23 ⁴	55 31 ¹	9	
24	39 16 ⁸	32 46 ⁷	55 45 ⁵	3	
28	46 8 ⁰	29 59 ¹	56 54 ⁶	8	
July 3	39 9 ⁰	25 54 ⁴	58 32 ⁸	5	
5	12 36 34 ⁸	332 24 9 ²	− 11 59 20 ²	7	

Observations of ASTRÆA.

HAMBURG.		(M. Rümker.)			
	Hamburg M.T.	R. A.	Dec.		
	^h ^m ^s	[°] ['] ["]	[°] ['] ["]		
1847. May 21	11 39 23 ⁴	233 48 15 ¹	− 10 21 11 ⁰	Mer. Cir.	
24	11 24 53 ¹	233 7 28 ⁹	10 14 31 ⁴	Mer. Cir.	
	12 12 9 ⁹	233 7 12 ⁰	10 14 12 ⁰	7	
June 3	12 3 47 ³	231 2 56 ⁰	9 58 45 ²	17	
7	11 28 28 ⁹	230 20 28 ⁵	9 56 1 ³	10	
9	10 10 5 ⁵	230 1 16 ⁶ ::	9 55 33 ⁸	Mer. Cir.	
	11 20 32 ¹	230 0 54 ⁵	− 9 55 27 ⁴	8	
11	11 32 23 ⁸	229 42 25 ⁵	− 9 55 13 ⁶	7	

Downloaded from <http://mnras.oxfordjournals.org/> at Michigan State University on June 12, 2015

		Hamburg M.T.			R.A.			Dec.			
		h	m	s	°	'	"	°	'	"	
1847.	June 12	11	13	40.3	229	33	56.8	9	55	17.4	7
	14	11	48	54.6	229	18	2.0	9	56	20.4	2
	18	11	35	35.0	228	49	25.7	9	59	19.7	16
	19	10	56	47.3	228	43	22.6	10	0	7.7	1::
	20	11	18	47.4	228	37	34.4	-10	1	29.5	20

Apparent places of the stars which have served for comparison with *Astræa*, determined with the meridian circle:—

	R.A.			Dec.		
	h	m	s	°	'	"
June 2	15	26	40.650	-10	0	37."
8	24	1.629		9	54	48.9
10	15	57.612		9	46	9.7
15	14	55.933		9	55	52.6
14	22	11.404		9	47	43.2
14	22	34.218		9	46	58.5
20	15	14.21.452		-10	6	5.6

Elements of the Binary Star γ Virginis. By Mr. Hind.

The following orbit was computed by the method of Encke, given in *Berliner Jahrbuch* for 1832. It does not, however, represent the state of singleness observed at the end of 1836 by Sir J. Herschel and Captain Smyth; nor indeed does any other orbit hitherto published: but, in other respects, the series of observations from Bradley to the present time is satisfied with tolerable accuracy. The measures employed in the direct calculation of the elements are Sir W. Herschel's, in 1781; Struve's, in 1832 and 1836; and Mr. Dawes', in 1842. The distance, however, for 1836, is taken to be 0".41 instead of 0".257, the distance stated by Struve, in order to get an ellipse which would exactly represent the other data.

Perihelion Passage.....	1836.556
Longitude Perihelion.....	318° 16'.6
— Node.....	28 58.0
Inclination of Orbit	28 42.1
Log. Semi-axis Major	0.57347
Log. Mean Annual Motion	2.111166
Eccentricity	0.87715 = sin 61° 18' 3"
Period of Revolution	167.031 years.

Ephemeris of γ Virginis. By Mr. Hind.

1846,0	Position	181.85	Distance	2".523
1847,0		179.97		2.671
1848,0		178.27		2.813
1849,0		176.73		2.948
1850,0		175.33		3.077
1851,0		174.03		3.201
1852,0		172.84		3.321